Chronic Care Management Tool for HIV/Aids

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Background

3 areas of information needed:

1. Support the chronic care of HIV patients
   - Provide clinician with the critical information they need
   - Provide triggers to healthcare workers eg. identification of positive family members, prevention, TB, IRIS, side effects etc
2. Reporting on clinical NDoH and PEPFAR indicators
3. Clinic process monitoring and improvement
   - Role definitions within clinic staff
   - Facilitates patient stratification and flow through the clinic

- Designed as a temporary solution
- Shoe string budget

Overview of Chronic Care Tool

- Hybrid paper and ACCESS based system
- Paper based forms
  - Initial visit form
  - Deregistration form
- Computer generated forms
  - (ART Preparation)
  - ART follow-up form
  - Transfer form
- Access Database
- Modelled on patients and ART regimens
- Data points to report nearly all clinical NDoH indicators

Implementation process

- Iterative development process – ongoing
- Direct involvement in development by all staff categories
- Retrospective entering of critical data
- Phased implementation Strategy - ongoing
  - Clinicians
  - Nursing Sisters
  - Counsellors
  - Clerks
  - Dieticians and allied medical
  - Pharmacy

Demonstration

- Being used!
  - 1671 children registered on system at Harriet Shezi Children's Clinic
  - 8991 clinical visits captured
  - One data capturer now that system up and running
  - <2 minutes per patient

DORA ART (clinical) indicators

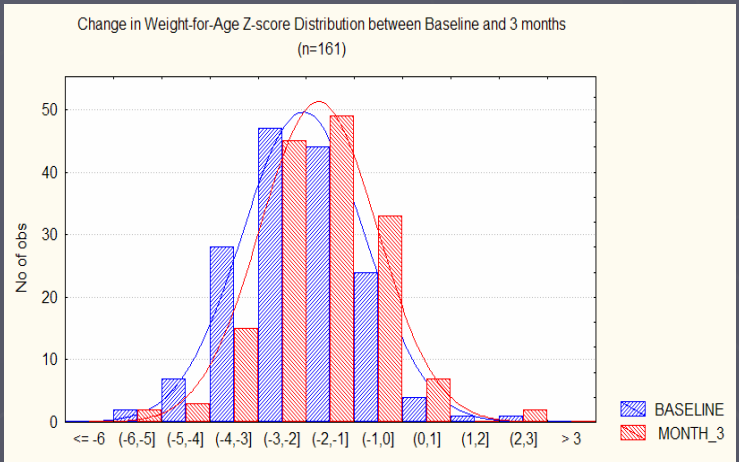
Number ART assessment first visit
Number of HIV patients medically eligible for ART on waiting list
Number of registered ART patients - ART start
Number of registered ART patients transferred in new
Number of registered ART patients total
Number of registered ART patients adult male
Number of registered ART patients adult female
Number of registered ART patients child
Number of de-registered ART patients other reasons than death or transfer out
Number of de-registered ART patients transfer out
Number of de-registered ART patients due to death
Number of CD4 tests done can do for clinic
Number of CD4 turn-around > 6 days (LAB?)
Number of HIV viral load done
Number of STI treated new episode among ART patients
Number of in-patient days of patients on ART

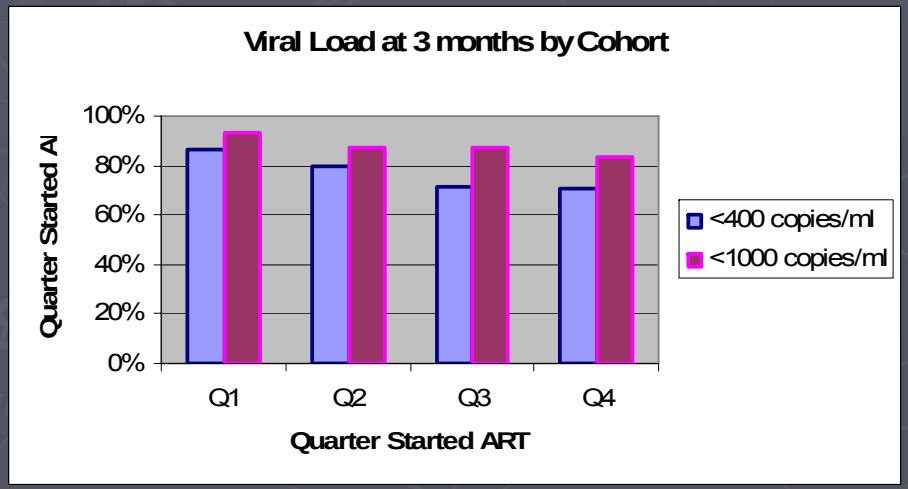
Reporting of other NDoH Indicators

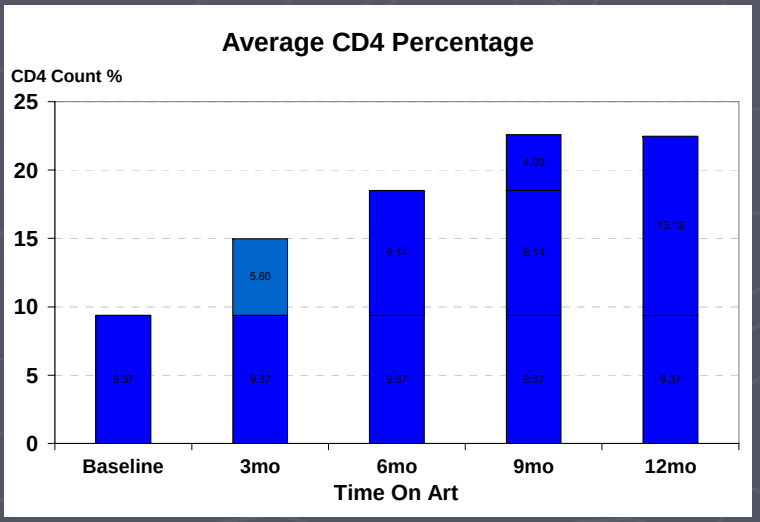
- Known-death rate during readiness assessment (Monthly)
- Loss to follow up index (Quarterly)
- De-registered patients index (Quarterly)
- Proportion of registered patients on regimen 1a or 1b (Monthly)
- Proportion of registered patients on regimen 2 (Monthly)
- Proportion of registered patients on any child regimen (Monthly)
- ART Adherence last 3 days proportion 100% (Quarterly)
- Scheduled dose defaulting rate regimen (Quarterly)
- Cohort Viral Load Effectiveness Parameter (Monthly)
- Cohort Weight Gain Parameter (Monthly)
- WHO Stage Parameter (Monthly)
- Cohort CD4 Effectiveness Parameter (Monthly)
- Proportion of patients registered who missed one dose or more in the last 3 days (Monthly)
- Average number of year lived while on treatment (Two yearly)

Reports generated

- Annual report for DoH in May 2005 – all critical indicators reported







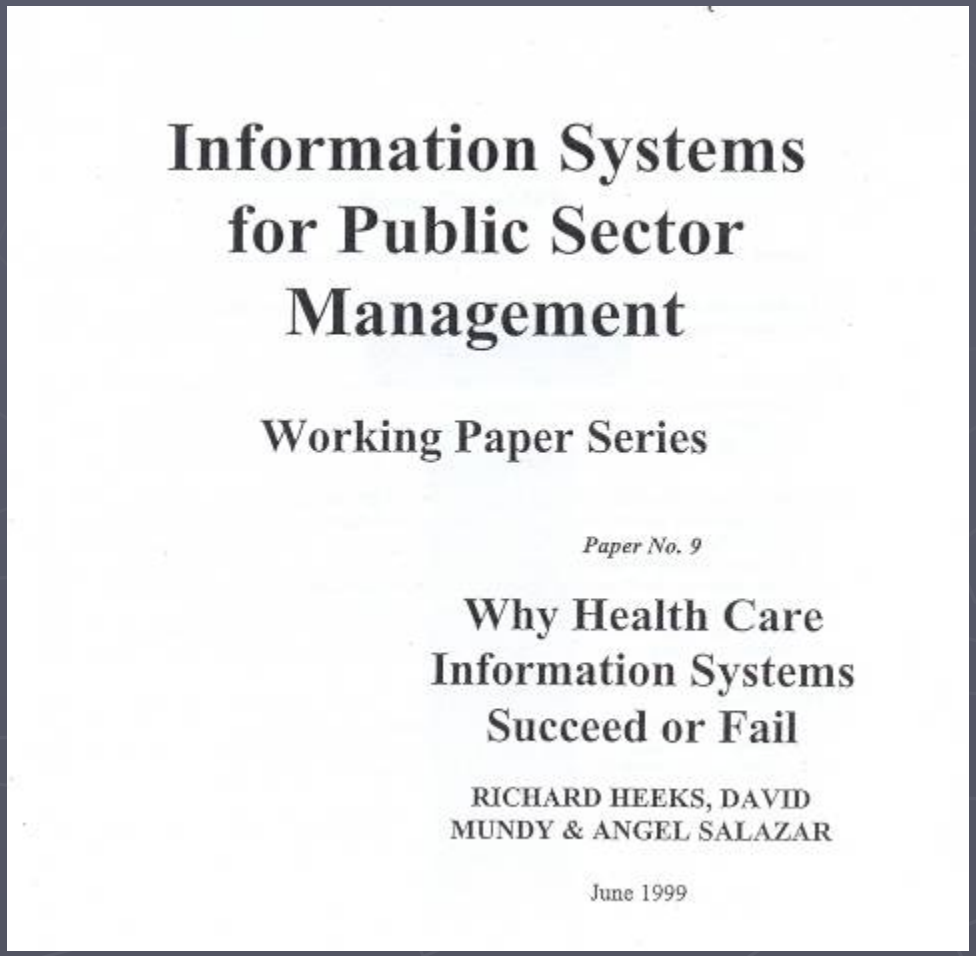
Limitations

- Free – limited IT support
- Requires data capturers
- Printing of forms for each visit
- Not web enabled
- Current version is unwieldy - structure of database requires some expertise to generate reports
- Underlying structure currently being revised (November 2005)
  - Automatic weekly, monthly, quarterly and annual reports and graphs
  - Automatic defaulter notification

Summary

- Need a system which:
  - Supports patient care
  - Supports clinicians in decision making
  - Provides real-time information on clinic population for clinic manager – data must be onsite, accessible and meet needs of clinic managers
  - Assists with stratification and patient flow
  - Is flexible
  - Facilitates the accurate reporting of DORA and M&E NDoH indicators as well as PEPFAR
  - Implementation issues – the reality gap

Leap-frog and “Reality Gaps”



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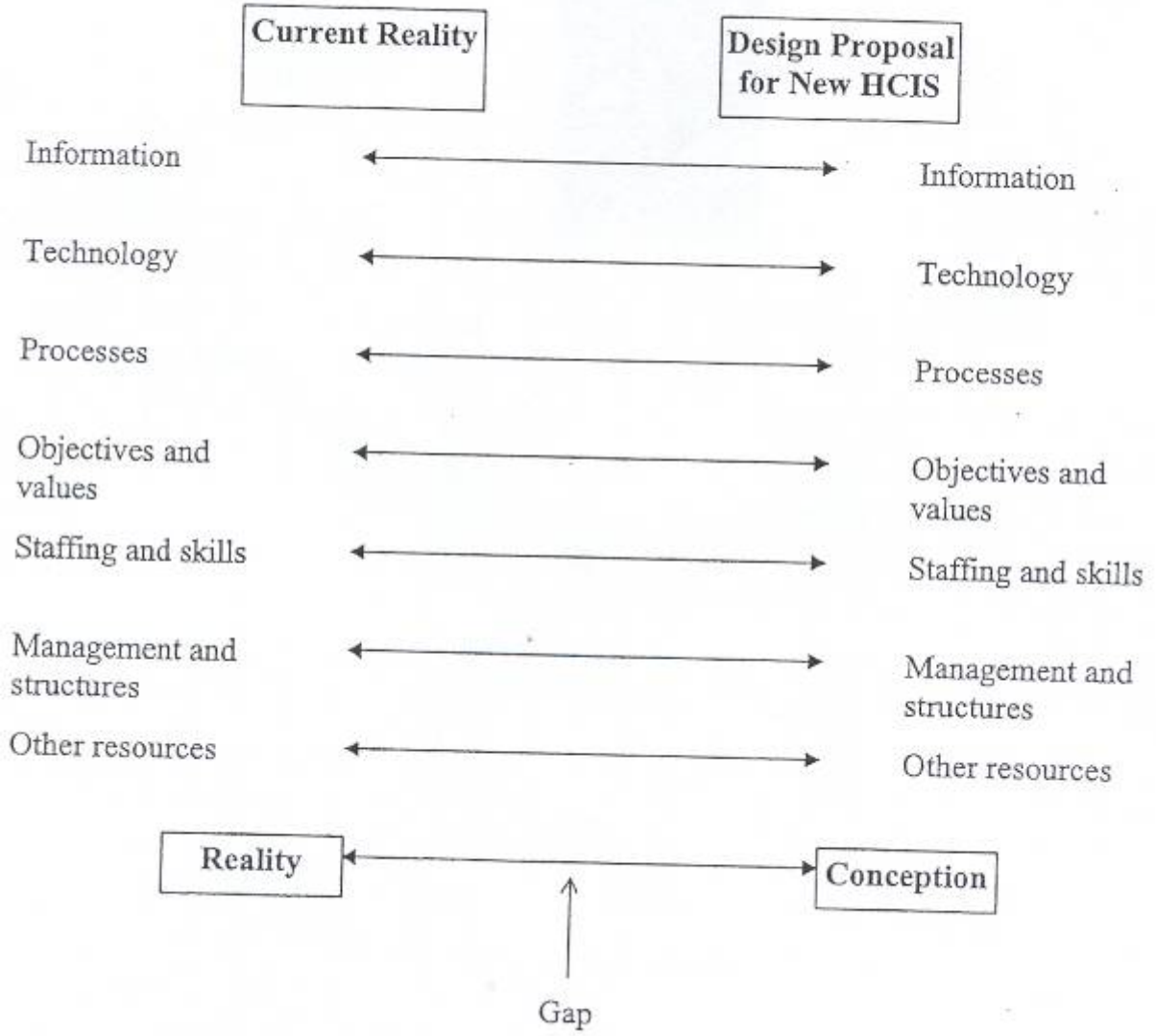
June 1999

Figure 1. The ITPOSMO Dimensions of Change for Health Care Information System Proposals



- when health care information systems derived from hard rational models of organisation meet a different behavioural reality;
- when HCIS derived from the private sector are transferred to public sector health care organisations;
- when HCIS derived from one country are transferred to another country, especially from an industrialised to a developing country.

Acknowledgments

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